Abstract

The Great Recession in the United States provides a clear indication that mispricing mortgage risks can have grave consequences. Unfortunately, mispricing risks is likely to have unintended negative consequences for the housing recovery as well. For instance, if mortgages on energy-efficient homes have lower default risks than those on less-efficient ones, using the same underwriting guidelines and pricing may not be the most efficient way to allocate credit. While many have theorized that energy-efficient homes should have lower default risks than ordinary homes because the former should be associated with lower residential energy costs, leaving more money to make the mortgage payment, there have been very few empirical studies. Due to data availability, prior work has relied on proxy measures to capture such effects. In this study, we address this limitation by examining whether energy efficiency is associated with lower mortgage risks. We use a national sample of about 71,000 loans from CoreLogic and examine whether mortgages on Energy Star-rated homes are associated with lower default and prepayment risks. We use a carefully constructed sample of Energy Star- and non-Energy-Star-rated single-family homes, accounting for loan, household, and neighborhood characteristics. We also examine whether the extent of energy efficiency matters by including the Home Energy Rating System (HERS) rating in the analysis. We use a multinomial logit model to simultaneously estimate default (90-day delinquency) and prepayment risks.

The findings indicate that default and prepayment risks are lower in energy-efficient homes by as much as one-third. This finding is robust, significant, and consistent across several model specifications. Moreover, we find that the extent of energy efficiency matters, i.e., more energy efficiency (lower HERS rating) is associated with even lower risks, even among Energy Star-rated homes. The lower risks associated with energy efficiency should be taken into consideration when underwriting mortgage risks. As such, Congress should consider the findings in its deliberations of the Sensible Accounting to Value Energy (SAVE) Act. Similarly,